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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,038	11/30/2001	Judith A. Bayer	9997	6072
26890	7590	04/14/2006	EXAMINER	
JAMES M. STOVER NCR CORPORATION 1700 SOUTH PATTERSON BLVD, WHQ4 DAYTON, OH 45479			KRISCIUNAS, LINDA MARY	
			ART UNIT	PAPER NUMBER
			3623	

DATE MAILED: 04/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/998,038

Applicant(s)

BAYER ET AL.

Examiner

Linda Krisciunas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-43 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The following is a Final Office Action in response to the Applicant's amendment filed April 4, 2006. Claims 1-43 are pending and claims 1, 16 and 30 were amended.

Response to Amendment

2. The Examiner notes the update to the Specification to reflect the referenced application numbers. The objection is subsequently withdrawn.

Response to Arguments

3. The Examiner has fully considered the amendments to claims 1, 16 and 30 and they are deemed not persuasive. Fuisz teaches a "prime motivator" (column 2, lines 36-40), where the prime motivator is identified and used to indicate the motivation for the shopper to initiate a shopping session. This is equivalent to the focal product set as defined in the Specification (page 6, lines 23-25), where the focal product set includes products that trigger a sequence of purchasing behavior. In addition, Fuisz teaches a "derivative product(s)" (column 2, lines 40-44), which are products purchased during the shopping session that did not initiate the shopping session, but still represent purchasing behavior. This is equivalent to the analysis product set as defined in the Specification (page 6, lines 25-26), where it includes products that describe the customer purchasing behavior. Fuisz builds a database of information by logging the products purchased during every shopping session and classifying them as either a derivative or prime motivator product (column 4, lines 1-4). Therefore, Fuisz teaches an equivalent structure that performs an identical function in substantially the same manner with substantially the same results.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-13, 16-28 and 30-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Fuisz et al (US 6,718,310).

As per claims 1, 16 and 30, Fuisz teaches accessing customer transaction data from a database managed by a computer (column 5, lines 4-7: "The method 1000 builds a database of customer behavior based on observed customer purchases and the order in which the purchases were made."); performing a pattern detection function in the computer using the customer transaction data accessed from the database, wherein the pattern detection function finds patterns in customer purchasing behavior, as evidenced by the customer transaction data, related to a sequence of when purchases occur (See Figure 3, column 5, lines 38-57: "FIG. 3 illustrates a method (2000) according to another embodiment of the present invention. According to this second method (2000), the system (100) maintains an ever-increasing list of prime motivators during a single shopping session. Again, prior to a first iteration of the method (2000), the list of prime motivators is set to a null value. Each time a purchase is made, the method (2000) may be called. In step (2010), the method (2000) determines whether the purchased

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product is related to any prime motivators that may have been identified previously during the shopping session (Step 2010). If so, the purchased product may be designated as a derivative and the method (2000) may increment the derivative count for the purchased product in the product database (Step 2020). Otherwise, the list of prime motivators may be amended to include the purchased product (Step 2030). Also, the method (2000) may increment the prime motivator count for the purchased product in the product database (140) (Step 2040). At the conclusion of (Step 2020) or (Step 2040), the method (2000) may conclude and, if necessary, return to a larger purchasing routine for completion.” Whereby the ability of the system to maintain a list of prime motivators and derivatives of customer purchasing data is representative of determining a pattern) by comparing a focal product set to an analysis product set using a time frame for an initial focal product set purchase, and a number of time intervals for one or more analysis product set purchases before and after the initial focal product set purchase (Fuisz teaches a “prime motivator” (column 2, lines 36-40), where the prime motivator is identified and used to indicate the motivation for the shopper to initiate a shopping session. This is equivalent to the focal product set as defined in the Specification (page 6, lines 23-25), where the focal product set includes products that trigger a sequence of purchasing behavior. In addition, Fuisz teaches a “derivative product(s)” (column 2, lines 40-44), which are products purchased during the shopping session that did not initiate the shopping session, but still represent purchasing behavior. This is equivalent to the analysis product set as defined in the Specification (page 6, lines 25-26), where it includes products that describe the customer purchasing

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behavior. Fuisz builds a database of information by logging the products purchased during every shopping session and classifying them as either a derivative or prime motivator product (column 4, lines 1-4). Therefore, Fuisz teaches an equivalent structure that performs an identical function in substantially the same manner with substantially the same results. The timing aspect is represented by the shopping session, where the session occurs within a period of time and each shopping session would constitute another time interval.).

As per claims 2, 17 and 31, Fuisz teaches the pattern function identifies the patterns in the customer purchasing behavior leading up to and after the purchase (column 6, lines 2-5: "The method may cross-reference purchasing decisions with customer profiles to determine whether a purchase has been made as part of a routine or represents other ad hoc purchasing decisions." Whereby the cross referencing may occur before or after the purchase or on both occasions.).

As per claims 3, 18 and 32, Fuisz teaches the pattern detection function discovers which of the patterns in the customer purchasing behavior are associated with future purchases (column 4, lines 39-49: "In the example above, during the third iteration of the method 1000, the customer purchases shampoo. It is unlikely that Tylenol and shampoo will be assigned the same class codes in the product database 140. Thus, the method 1000 will not consider Tylenol and shampoo to be related products. The purchased shampoo will be designated as the prime motivator and its prime motivator count will be incremented. Tylenol will cease to be the prime motivator. Thus, in a successive iterations of the method 1000, the method

1000 will determine if the next-purchased product is related to shampoo.”)

As per claims 4, 19 and 33, Fuisz teaches the pattern detection function finds the patterns in the customer purchasing behavior by comparing a focal product set to an analysis product set over a specified time interval (column 8, lines 58-67: “Accordingly, the present invention provides methods of identifying prime motivator products and derivative products based upon product class codes, time indices and number of pages viewed. The methods and, in particular, the class codes may be tailored for specific applications such as to identify brand loyalty among the consuming public. The present invention also may be further enhanced to filter product purchases and possibly exclude them from being considered as prime motivators or derivatives based upon customer histories.” Whereby the “prime motivator” represents the focal product set and the “derivative” represents the analysis product set.).

As per claims 5, 20 and 34, Fuisz teaches determining when an item from the analysis product set is purchased after an initial purchase of an item from the focal product set over the specified time interval (See Figure 6, column 7, lines 10-28: “FIG. 6 illustrates another method (5000) according to an embodiment of the present invention. According to method (5000), prime motivator products may be identified based upon the times between product purchases. According to the embodiment, the method (5000) records the time of the beginning of a shopping session and the time of each product purchase (Steps 5010, 5020). At the conclusion of the shopping session, for each purchased product, the method (5000) determines an incremental time of purchased measured as the time between the most recent preceding purchase (Step

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5030). The first purchased product is designated a prime motivator product. Also, purchased products may be designated as prime motivator products if their associated incremental time of purchase is greater than the average time between purchases (Step 5040). All other products are designated derivative products. The method increments the prime motivator counts and derivative counts of the purchased products in the product database 140.”).

As per claims 6, 21 and 35, Fuisz teaches the focal product set includes products that trigger a sequence of the customer purchasing behavior for the specified time interval (column 2, lines 25-35: “Embodiments of the present invention provide a system for identifying and measuring customer motivations in purchasing environments. The system monitors customers as they select goods or services (collectively, “products”) for purchase. Of the products that are selected, the system identifies those products that are prime motivators, those products that are related to the customer's motivation to enter the on-line store. The system also identifies other products that are secondary motivators, products that the customer purchases as ancillary to the prime motive products.”).

As per claims 7, 22 and 36, Fuisz teaches the analysis product set includes products that describe the customer purchasing behavior (column 2, lines 40-44: “The system also identifies “derivative products,” those products that are purchased during a shopping session that, most likely, are not products that caused a customer to initiate a purchasing session.”).

As per claims 8-9, 23-24 and 37-38, Fuisz teaches the pattern detection function filters the customer transaction data using a specified attribute in order to reduce the customer transaction data examined for the focal product set (See Figure 4, column 5, lines 66-column 6, lines 5: "FIG. 4 illustrates a method (3000) according to another embodiment of the present invention. The method (3000) may filter out certain purchases that would not reflect purchasing decisions of the public-at-large.").

As per claims 10, 25 and 39, Fuisz teaches specifying a measure to display for the analysis product set (column 8, lines 31-38: "The method (6000) designates the first purchased product as a prime motivator product. Also, purchased products may be designated as prime motivator products if their associated incremental number of pages is greater than the average number of pages between purchases (Step 6040)." Whereby derivative counts represent the measure.).

As per claims 11, 26 and 40, Fuisz teaches the measure is selected from a group comprising: number of customers, sales, confidence, normalized sales, average spending amount, and support (column 8, lines 36-38: "All other products are designated derivative products. The method increments the prime motivator counts and derivative counts of the purchased products in the product database (140)." Whereby the purchased products noted represent sales.).

As per claims 12, 27 and 41, Fuisz teaches displaying a chart on the computer generated by the pattern detection function that shows the measure for the analysis product set (See Figure 7, column 8, lines 39-46: "The method (6000) of FIG. 7 may be optimized further to account for the standard deviation of number of pages between

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product purchases. In this optimization, products may be designated prime motivators if their associated incremental number of pages between purchases are greater than the average number of pages between purchases plus the standard deviation of the number of pages between purchases.”).

As per claims 13, 28 and 42, Fuisz teaches the displayed chart illustrates purchases from the analysis product set over time periods before and after an initial purchase of the focal product set (claim 5: “A method of determining customer motivations in an on-line shopping session, comprising the steps of: associating a respective set of class codes with each of a plurality of product records in a database; each such product record including respective product information; retrieving product information for one or more products from the database; forwarding the retrieved product information to a remotely-located requester; receiving a purchase selection from the requestor for a particular product; retrieving a customer history associated with the requestor; comparing the purchased particular product to subscription products identified in the customer history; unless the purchased particular product matches a subscription product in the customer history, determining whether the purchased particular product is related to any subscription product identified in the customer history; if the purchased particular product is related to a subscription product identified in the customer history: revising the customer history to remove the related subscription product from the customer history, incrementing in the database a prime motivator count associated with the purchased particular product, and labeling the purchased particular product as the current prime motivator product.” Whereby the

information is gathered, updated and posted after each transaction which indicates the status both before and after purchase.).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 14-15, 29 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuisz in view of Billet (US 2003/0018514).

As per claims 14, 19 and 43, Fuisz does not explicitly teach using a segment of customers to determine the pattern detection function. Billet teaches that it is known to use a segment of customers with specified attributes to identify the customer transaction data to use in the pattern detection function (paragraph 24 and paragraph 40, whereby the system selects a pattern from its library that matches the data represents the segment of customers with certain attributes. Paragraph 40 indicates that the pattern method can be used in customer relationship management.). Billet is an analogous art as it also teaches about gathering, storing and determining patterns of customer data. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the customer database system of Fuisz with the customer-segment-attribute pattern detection feature of Billet to allow for a more cumulative feature of the database.

As per claim 15, Fuisz does not explicitly teach specifying customer level to determine how to aggregate the customer data. Billet teaches that it is known to specify a customer level to determine how to aggregate customer transaction data (paragraph 25, where the parameters represent levels). Billet is an analogous art as it also teaches about gathering, storing and determining patterns of customer data. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the customer database system of Fuisz with the level feature of Billet to allow for a more efficient means of aggregating the data.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
9. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linda Krisciunas whose telephone number is 571-272-

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6931. The examiner can normally be reached on Monday through Friday, 6:30 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LMK

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April 12, 2006


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